

Serial No. 10/824,254
17 May 2005 Reply to
26 April 2005 Office Action

Amendments to the Claims:

Please cancel claims 1-4, 7-11, and 20-22. The following listing of claims will replace all prior versions and listings of the claims in the application:

Listing of Claims:

1-11 (Cancelled)

12. (Previously Presented) A method of determining an analyte concentration in a tissue of a subject, the subject including an eye with an ocular surface and a conjunctiva surface, comprising the steps:
- detecting naturally occurring mid-infrared radiation emitted from the conjunctiva without contact with the ocular surface using a non-invasive instrument comprising a mid-infrared detector;
 - comparing a radiation signature of said mid-infrared radiation to a radiation signature of mid-infrared radiation corresponding to an analyte concentration; and
 - analyzing said radiation signature of said mid-infrared radiation from said subject to determine said analyte concentration in a tissue of said subject.
13. (Original) The method of claim 12, wherein said analyte is selected from the group consisting of metabolic compounds or substances, carbohydrates, sugars, glucose, proteins, peptides, amino acids, fats, fatty acids, triglycerides, polysaccharides, alcohols, ethanol, toxins, hormones, vitamins, bacteria-related substances, fungus-related substances, parasite-related substances, pharmaceutical compounds, non-pharmaceutical compounds, pro-drugs, drugs, and any precursor, metabolite, degradation product or surrogate marker.
14. (Original) The method of claim 13, wherein said analyte is glucose.

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15-16 (Cancelled)

17. (Original) The method of claim 12, wherein said naturally occurring mid-infrared radiation comprises infrared radiation having wavelengths between about 2.5 microns and about 25.0 microns.
18. (Original) The method of claim 12, wherein said detecting step further comprises selecting and detecting desired wavelengths of said naturally occurring mid-infrared radiation.
19. (Original) The method of claim 12, wherein said comparing step and said analyzing step further comprise using a microprocessor.

20-22. (Cancelled)

23. (Original) A method of downloading and storing a subject's measured analyte concentration, comprising the steps of: a. measuring said analyte concentration according to the method of claim 12, using a non-invasive mid-infrared detecting instrument having a communications interface; b. connecting said instrument through said communications interface to a computer system having a computer processor, a computer program which executes in said computer processor, and an analogous communications interface; and c. downloading from said instrument to said computer system said measured analyte concentrations.